

ABSTRACT OF THE DISCLOSURE

0344347 043604  
The invention provides an AC servomotor which can be controlled with high precision as a result of reducing cogging torque generated between the magnet and the stator-side iron core.

An AC servo motor in which annular polar anisotropic magnets, formed by splitting an anisotropic magnet into two or more portions in an axial line direction, are used in a rotor. The magnetic poles of the split annular polar anisotropic magnets are disposed so as to be shifted by a predetermined angle  $\theta'$  which is greater than a skew angle  $\theta$  determined based on the number of torque ripples per rotation of the rotor determined by the number of magnetic poles and the number of slots in a stator-side iron core. The predetermined angle  $\theta'$  is the angle obtained after adding to the skew angle  $\theta$  a value which takes into consideration magnetic interference between the magnets.